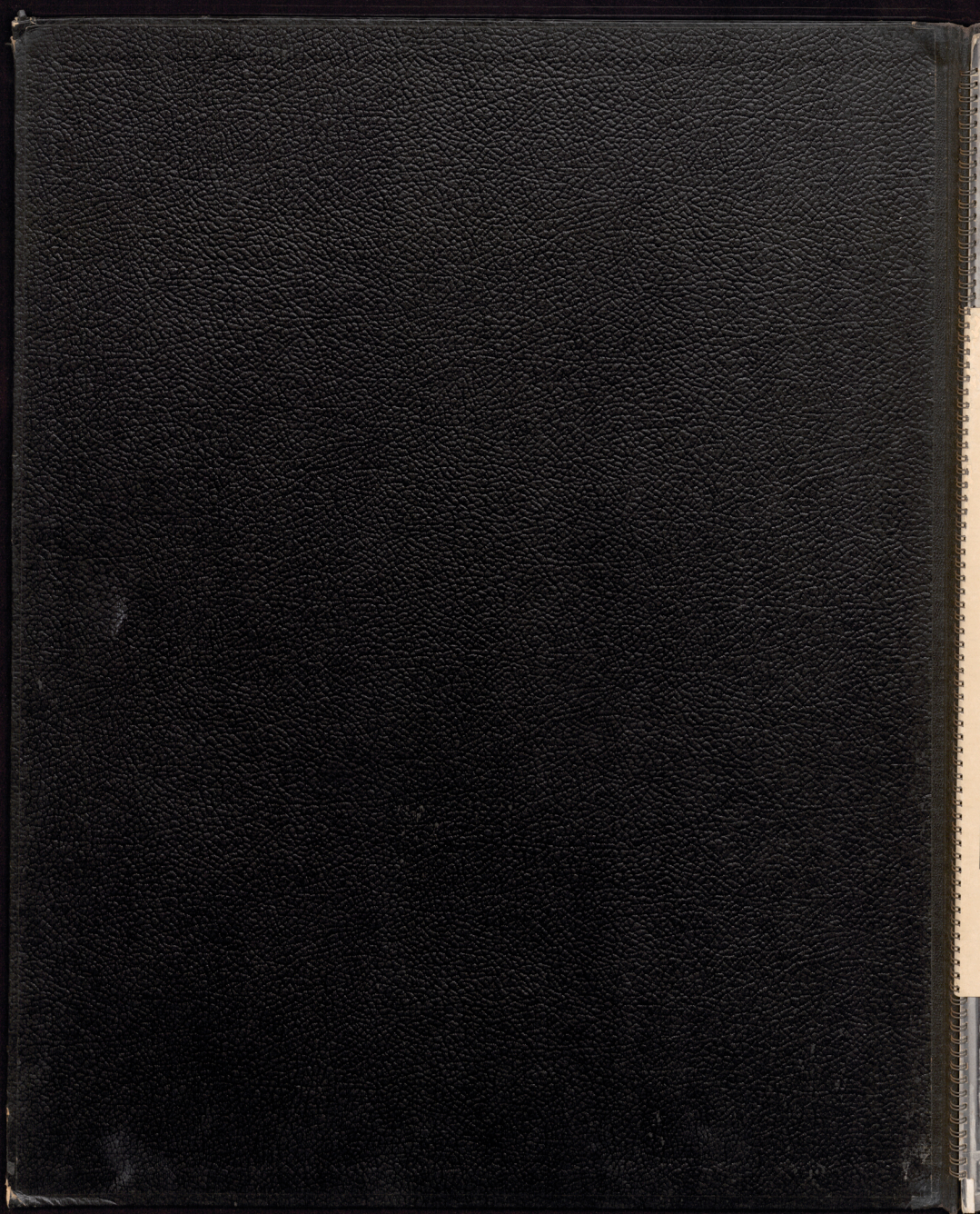


BIRTH ATLAS

Dickinson - Belskie

THIRD EDITION

MATERNITY CENTER ASSOCIATION
New York

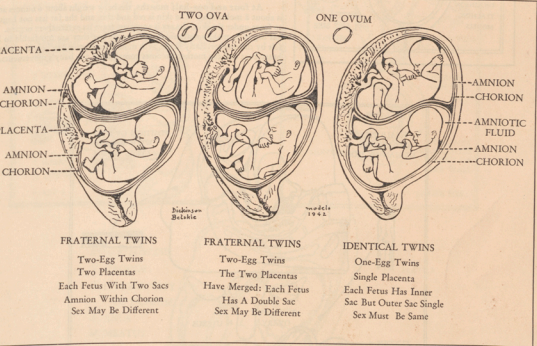


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RACINE - WIS.
BIRTH ATLAS
Reproductions of Twenty-four Life-Size Sculptures of Fertilization,
Growth, Stages of Labor, and Involution

Published and Copyrighted by MATERNITY CENTER ASSOCIATION, New York
48 East 92nd Street, New York 28, N. Y.
First Edition, 1940, Reprinted 1942, Second Edition, 1943, Reprinted, 1946, 1947, 1948, 1950, Revised, 1951
Third Edition, 1953, Reprinted 1954, 1955

A grasp of the third dimension is essential when teaching the anatomy and physiology of reproduction. It is difficult to describe depth or represent things in the round by means of flat drawings. The pictures of the "Birth Atlas" present a very striking illusion of third dimension. The reproductions are photographs of life-size sculptures showing the growth of the baby step by step from conception until birth and then the slow return of the uterus to normal size and position.

The models differ from the usual textbook illustrations because of their live look; and upstanding womb-at-work and pulled-up cervix. This is due to their development from selections among thousands of X-rays, some made especially for this three dimensional research in Sloane, New Haven, Johns Hopkins, Bronx, and Harlem Hospitals. Doctors Caldwell, Moley, Ball, Thom, Dippel, and Snow gave much time and counsel to the project, which was carried out in the Studio of the New York Academy of Medicine.



It should be noted that the reproductions show some unavoidable photographic distortion and that various details are deliberately diagrammatic, such as the separation of vaginal walls and peritoneal layers or thickened membranes and fascia.

Dr. Robert L. Dickinson was designer and draughtsman, modeller of the anatomy and obstetrics; Abram Belskie, D.A.,

the sculptor; and Malvina Hoffman, the consultant. The late Dr. Vladimir Fortunato gave valued early aid. The photographs were made by the DeWitt Ward Studio. H. J. Harris helped in retouching the photographs and Dr. E. Schuchardt made the line drawings. This pioneer project was undertaken for the Maternity Center Association and was exhibited by them at the New York World's Fair.

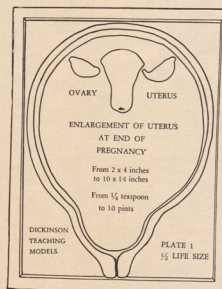
ON FERTILIZATION
STEPS OF GROWTH
STAGES OF LABOR
AND INVOLUTION

ABRAM BELSKIE
ROBERT L. DICKINSON
MATERNITY CENTER ASSOCIATION
NEW YORK 1920

life-size throughout

Dickinson sculptor of teaching models

25B
343



WHEN the mother misses the first expected menstruation (four weeks menstrual age) the embryo has just begun to develop and the whole product of fertilization is about the size of a BB shot.

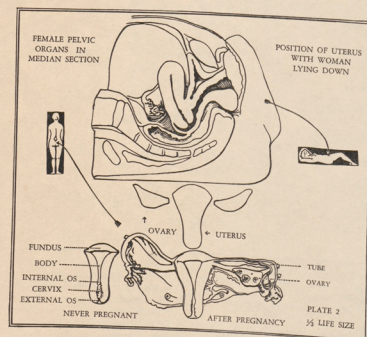
At six weeks, the embryo is beginning to take form. The head region shows the optical vesicle and the rudiments of the inner ear. The heart is enlarging and beating and the blood is circulating. The fetus has a distinct tail and the leg buds have appeared.

At seven weeks, the head is larger; the arms are beginning to form; the internal organs are enclosed within the body and the tail is growing smaller.

At two and one-half months, the fetus is a big-headed, pot-bellied tiny creature that shows its relation to the human race but looks like a very primitive member. The tail has almost disappeared; the hands and feet have begun to take form, and the face has eyes, nose and mouth.

At three and one-half months, the fetus looks like a baby with its eyes closed. It has a flat nose, an oversized head, short arms and legs. Its hands and feet have webbed fingers and toes. The fetus with its membranes fills the uterine cavity; its internal sex organs are beginning to take shape. Muscles have developed under the skin and the tooth buds for the temporary teeth are formed.

At four and one-half months, the baby weighs about 6 ounces and is about 8 inches long. The skin is red and thin and the fat has not begun to form under the skin. Its sex is apparent from its external sex organs. It has begun to make spontaneous movements but they are too feeble to be felt by the mother. Early in the fifth month the doctor can hear the baby's heart-beat and the mother becomes conscious of the baby's movements.



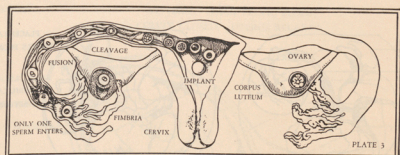


PLATE 3

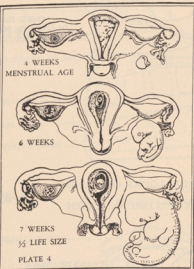


PLATE 4

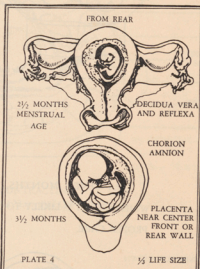


PLATE 4

SYM. SYMPHYSIS
V. VAGINA
T. I. TUBEROSITY
OF ISCHIUM
A. ANUS
M. MEATUS

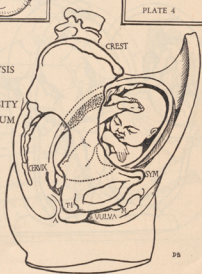


PLATE 1

HEART CAN BE
HEARD BEFORE THIS
PLACENTA FACES
BABY.

FOUR AND ONE-HALF
MONTHS. MOTHER IN
STANDING POSTURE.

28

DIFFERENTIATION
STAGES OF GROWTH
STAGES OF LABOR
AND INVOLUTION

ROBERT H. QUAIN
DICKINSON

ABRAHAM
BEISKIE

INTERNATIONAL CENTER ASSOCIATION
NEW YORK 1920

Dickinson series
of teaching models

life-size
throughout

TO 10 inches by 14
1/2 inches, 10 to 10 1/2 inches

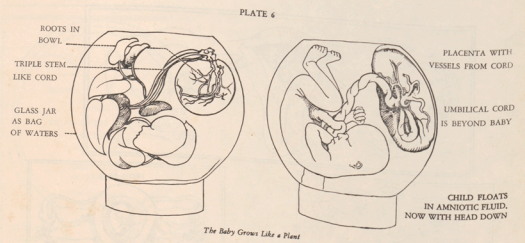
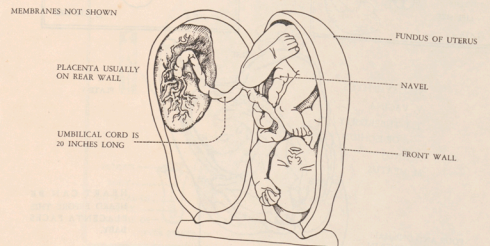
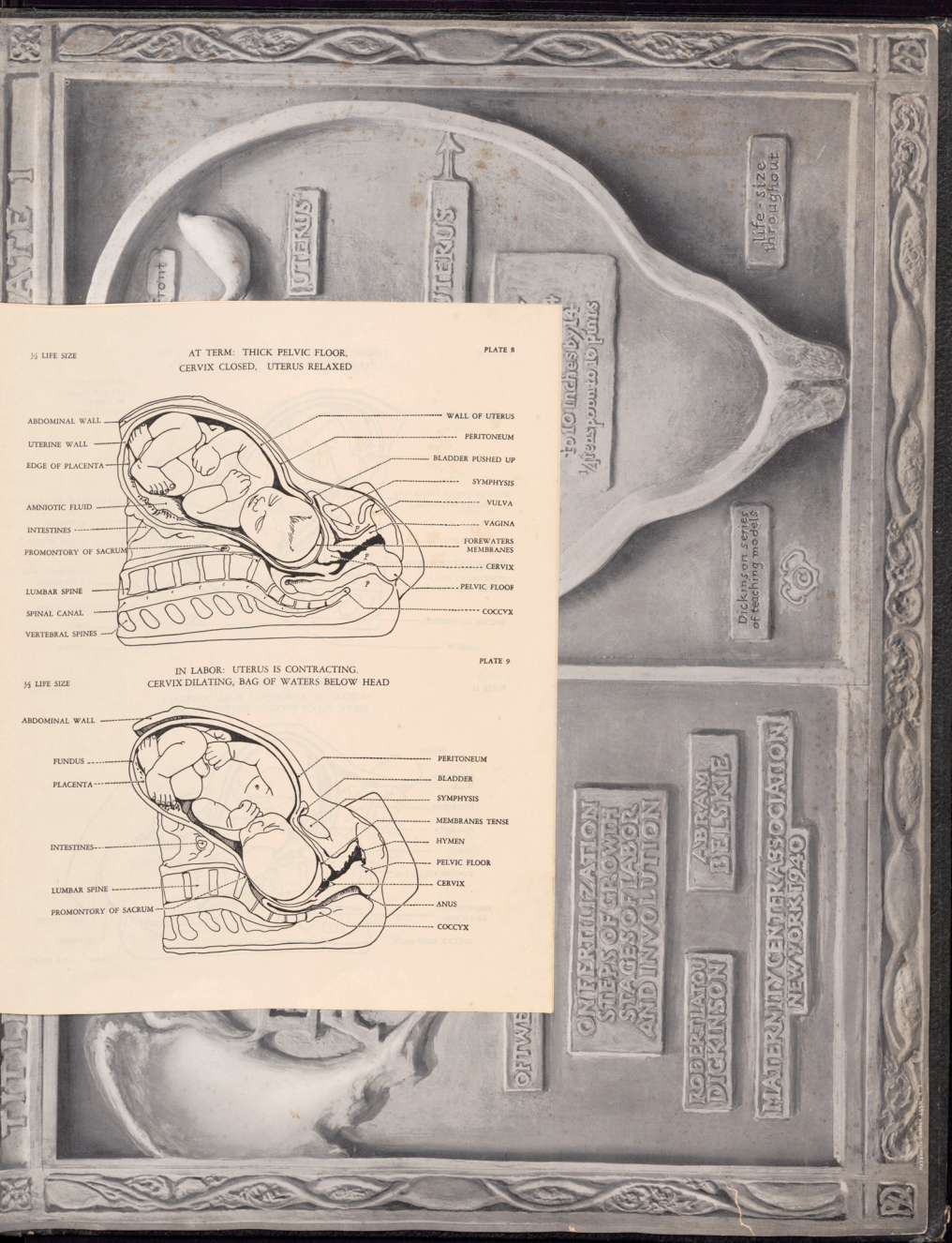


PLATE 7

AT SEVEN MONTHS, THE BABY STILL LOOKS OLD AND WRINKLED. IT IS LIKELY TO LIVE IF BORN AT THIS TIME AND GIVEN PROPER CARE.

1/2 LIFE SIZE

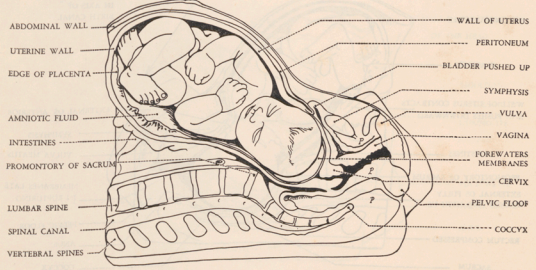




3/4 LIFE SIZE

AT TERM: THICK PELVIC FLOOR,
CERVIX CLOSED, UTERUS RELAXED

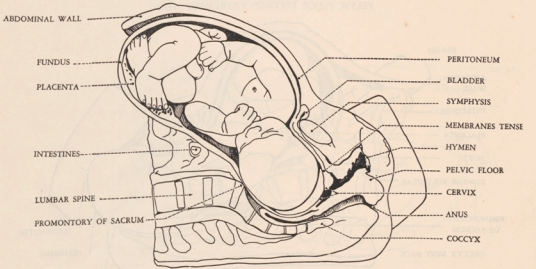
PLATE 8



3/4 LIFE SIZE

IN LABOR: UTERUS IS CONTRACTING,
CERVIX DILATING, BAG OF WATERS BELOW HEAD

PLATE 9



ON FERTILIZATION
STEPS OF GROWTH
STAGES OF LABOR
AND INVOLUTION

ABRAM
BELSKIE

ROBERT L.
DICKINSON

MATERNITY CENTER ASSOCIATION
NEW YORK 1940

PLATE 10

LABOR: HEAD DEEP IN BIRTH CANAL; PULL OF UTERINE CONTRACTIONS DRAWS CERVIX UP

3/4 LIFE SIZE

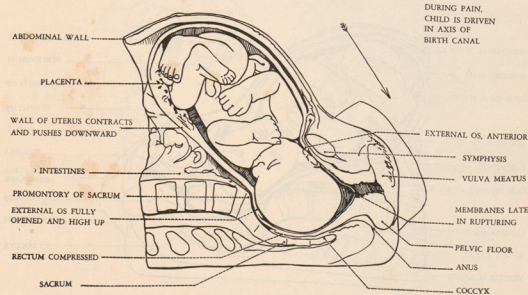
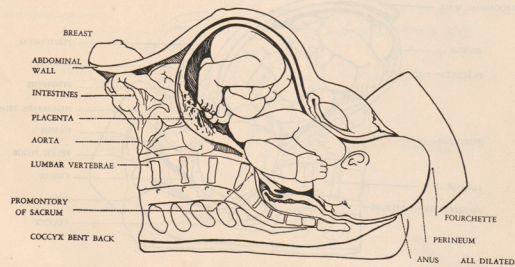


PLATE 11

LABOR: HEAD BEGINS TO APPEAR; MUSCLES OF ABDOMINAL WALL CONTRACT; PELVIC FLOOR BECOMES EXTREMELY THIN

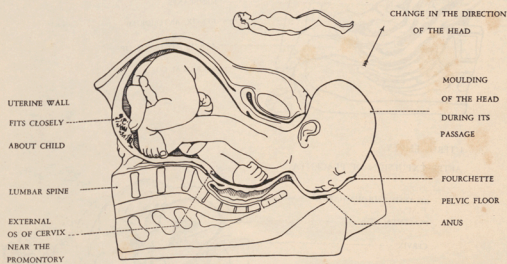
3/4 LIFE SIZE



3/4 LIFE SIZE

LABOR: HEAD TURNS UPWARD;
PELVIC FLOOR SLIPS BACK OVER FACE

PLATE 12



3/4 LIFE SIZE

BIRTH OF THE SHOULDERS,
TURNING TO FIT PASSAGE

PLATE 13

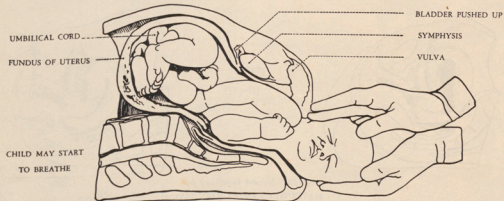


PLATE 1

life-size throughout

to 10 inches by 14 1/2 inches, pour to 10 pints

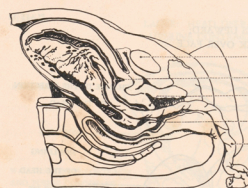
Dickinson series of teaching models

DIFFERENTIATION
STAGES OF GROWTH
STAGES OF LABOR
AND INVOLUTION

ABRAHAM
BELSKIE

ROBERT L. QUINN
DICKINSON

MATERNITY CENTER ASSOCIATION
NEW YORK 1920



PLACENTA AND MEMBRANES SEPARATING

1/2 LIFE SIZE

- SYMPHYSIS
- MEMBRANES
- CERVIX, ANTERIOR LIP
- CERVIX, POSTERIOR LIP
- UMBILICAL CORD

PLATE 14

UTERUS EMPTY
AFTER EXPULSION OF PLACENTA

- RELAXED ABDOMINAL WALL
- PLACENTAL SITE
- CERVIX

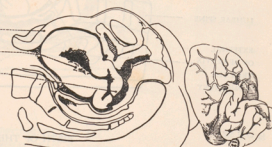


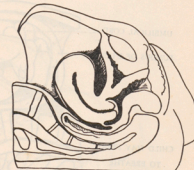
PLATE 14

FIFTH DAY AFTER LABOR

FIFTEENTH DAY AFTER LABOR:
SLOW INVOLUTION



PLATE 15
1/2 LIFE SIZE



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OF TWENTY-FOUR SCULPTURES

ON FERTILIZATION
STEPS OF GROWTH
STAGES OF LABOR
AND INVOLUTION

ROBERT L. QUINN
DICKINSON

ABRAHAM
BELSKIE

MATERNITY CENTER ASSOCIATION
NEW YORK 1940



ENLARGEMENT OF UTERUS

AT END OF
PREGNANCY
from 2 inches by 4
to 10 inches by 14
1/2 feet from 2 to 10 pounds

Dickinson series
of teaching models

life-size
throughout

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POSITION OF
UTERUS WITH
WOMAN
LYING DOWN



UTERUS AND
OVARIES
FROM REAR
LIFE SIZE



FEMALE PELVIC
ORGANS IN
MEDIAN
SECTION

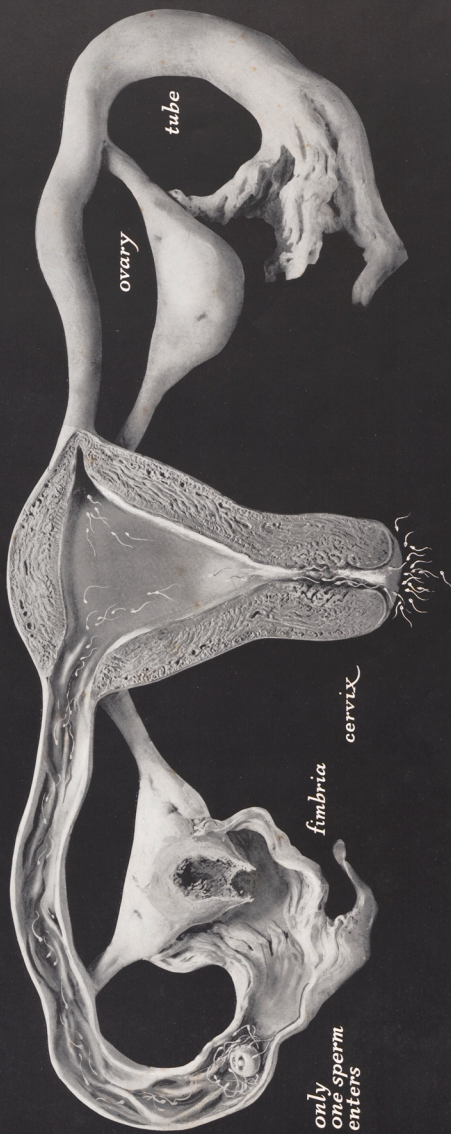


LEFT NEVER
PREGNANT
RIGHT AFTER
PREGNANCY



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BIRTH ATLAS No. 4
PLATE 3



COLLECTED BY WILLIAM
A. LINDSEY
MAY 1906 - - WE

EARLY WEEKS — BIRTH ATLAS — PLATE 4



V. Fortunato — R.L. Dickinson, '39



Dickinson, '39



placenta
near center
front or rear
wall

chorion
amnion

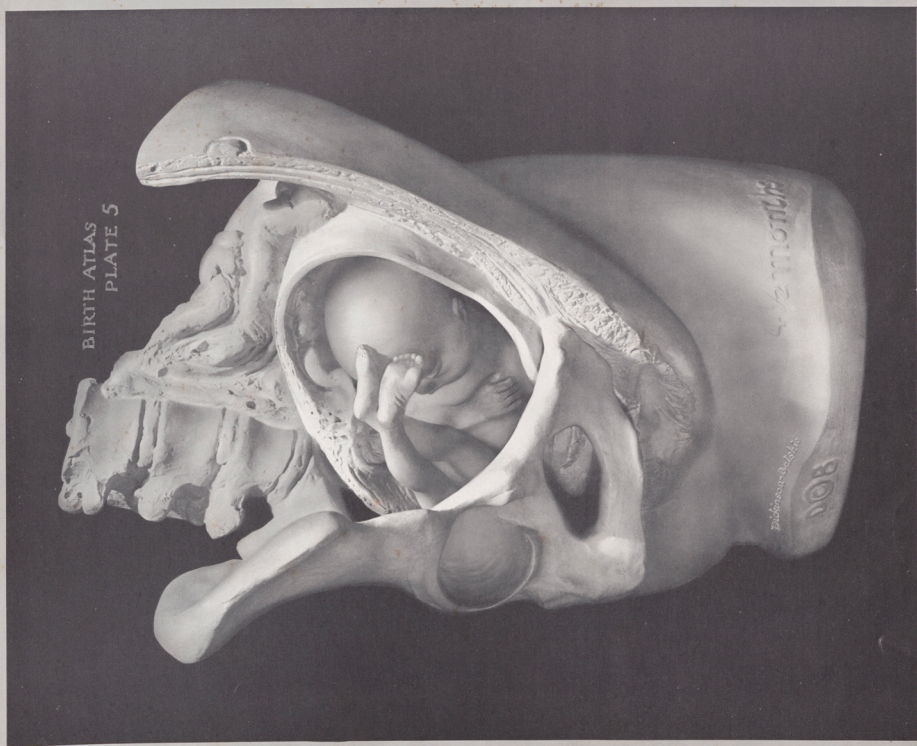
decidua vera
& reflexa

front

rear

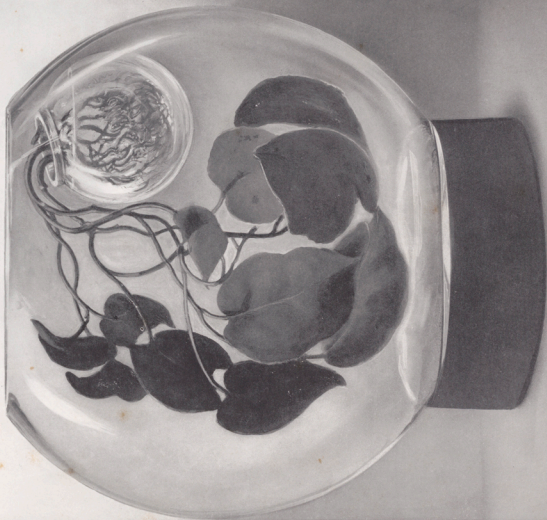
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BIRTH ATLAS
PLATE 5



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NOURISHMENT OF PLANT THROUGH STEM, WITH THE
ROOTS DIPPING INTO POOL OF WATER.



BIRTH
ATLAS
PLATE 6
No 11
& 12

NOURISHMENT OF CHILD THROUGH CORD, WITH THE
ROOT-VESSELS DIPPING INTO RESERVOIR OF ITS MOTHER'S
PLACENTAL BLOOD



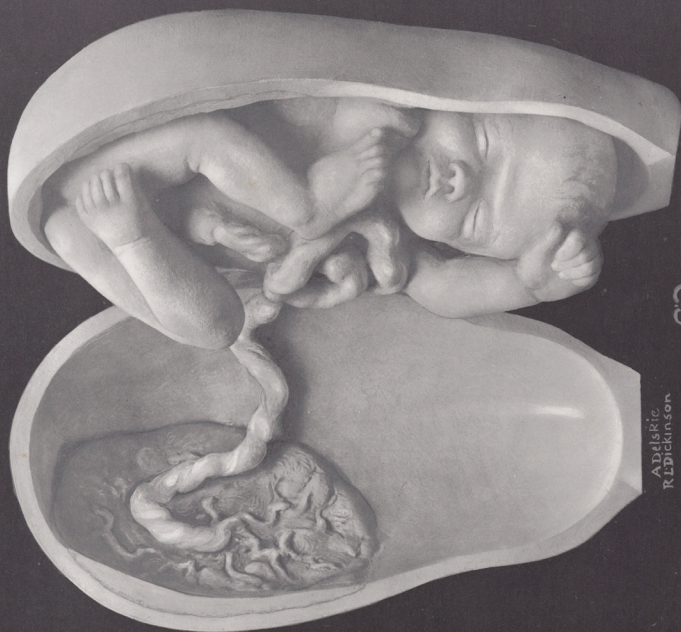
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SEVENTH
MONTH

BIRTH ATLAS №12
PLATE 7

PLACENTA
OPPOSITE BABY



Adelskic
Redickinson



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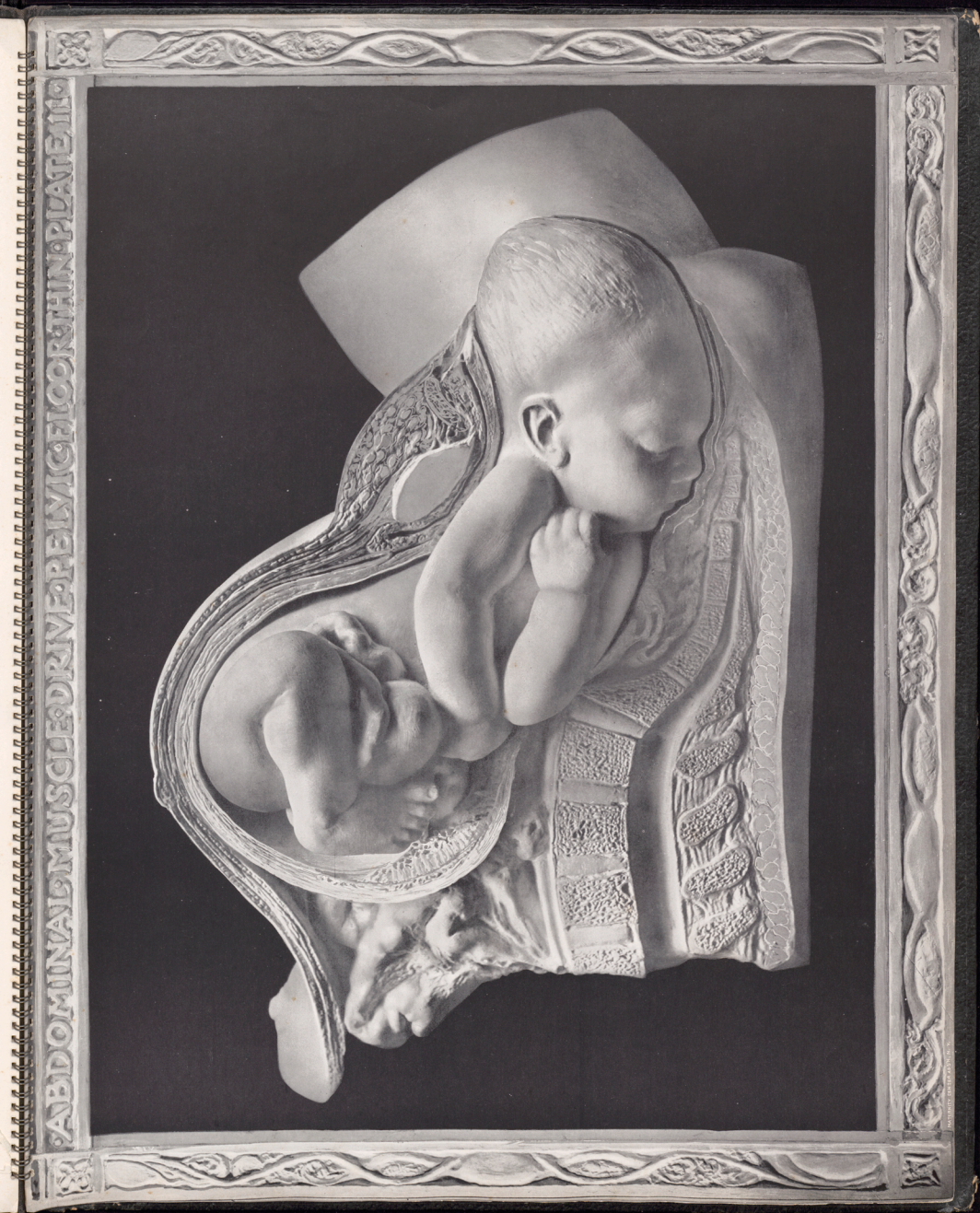
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ABDOMINUS MUSCULUS DRUM REINIGT COORTHINAPLATEM

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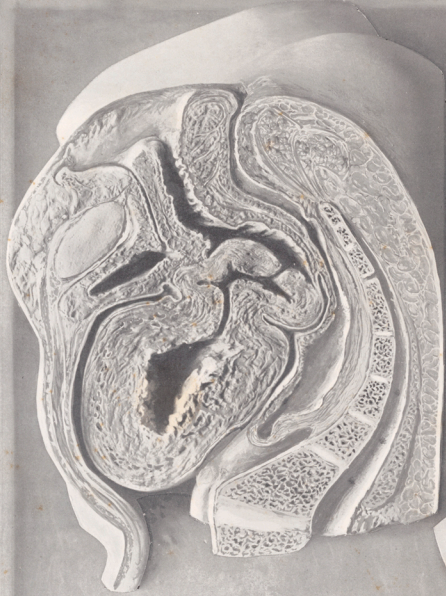


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UTERUS AFTER EXIT
OF PLACENTA: SAGS
INTO PELVIS



DICKINSON & BELSKIE

PLACENTA ALMOST
SEPARATED AND
MEMBRANES
LOOSENED



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FIFTH DAY AFTER LABOR
INVOLUTION UNDERWAY
MEDIAN SECTION



FOURTEENTH AFTER LABOR
SLOW SHRINKAGE OF UTERUS
IF EXERTION IS EXCESSIVE
DISPLACEMENT & PROLAPSE

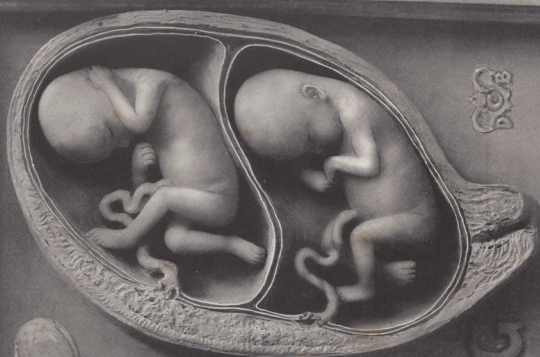


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ONE EGG

ONE EGG TWINS
ONE PLACENTA EACH FETUS
WITH INNER SAC (AMNION)
SINGLE OUTER SAC (CHORION)
CHORION ENVELOPES BOTH
SAME SEX IDENTICAL TWINS



TWINNING

BEISKE

TWO EGG TWINS
TWO PLACENTAS
EACH FETUS HAD ITS OWN
HAYEMERGED EACH
FETUS HAD ITS OWN
BRANES AMNION AND
CHORION SEX MAY BE
DIFFERENT



TWINNING

DICKINSON

TWO EGG TWINS
TWO PLACENTAS
EACH FETUS WITH TWO
SACS AMNION IN SIDE
AND CHORION OUTSIDE
SEX MAY BE DIFFERENT
FRATERNAL TWINS

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